

**Danner, Ward**

---

**From:** Armann, Steve  
**Sent:** Wednesday, October 22, 2014 10:51 AM  
**To:** Lyon, Sandra; Maez, Jan (jmaez@smmusd.org)  
**Cc:** Huettelman, Tom; Lieben, Ivan  
**Subject:** FW: Juan Cabrillo Elementary School - U.S. EPA PCB Public Health Levels for School Air

Sandy and Jan, per request from your counsel I'm forwarding to you the message we sent to Ms. Brown concerning PCB levels in certain rooms at JCES. If you have any question please call. Thanks.

Steven S. Armann, Manager  
Corrective Action Office (LND-4-1)  
USEPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

Phone: 415-972-3352  
Fax: 415-947-3533  
Email: armann.steve@epa.gov

---

**From:** Wilson, Patrick  
**Sent:** Friday, October 17, 2014 5:31 PM  
**To:** judebrownusa@gmail.com  
**Cc:** Armann, Steve; Huettelman, Tom; Beach, John; Santos, Carmen  
**Subject:** Juan Cabrillo Elementary School - U.S. EPA PCB Public Health Levels for School Air

Dear Ms. Brown,

Thank you for your September 30, 2014 email message to U.S. EPA Region IX's Regional Administrator Jared Blumenfeld regarding PCB concerns at Juan Cabrillo Elementary School. Many of your concerns relate to the air concentrations found at this school and the use of EPA's "Public Health Levels for PCBs in School Air." I would like to take this opportunity to provide you with more information regarding how these public health levels were initially derived and then applied at Juan Cabrillo Elementary School.

EPA's public health levels were intentionally derived to serve as health protective values intended for screening purposes. That is, these levels should not be interpreted nor applied as "bright line" or "not-to-exceed" criteria. Rather, these levels are intended to guide or trigger thoughtful evaluation of indoor air quality if PCBs are present above the levels. Measured concentrations below these numbers indicate no further action is needed to address exposure to PCBs in air. When measured concentrations are above these values, further assessment, and possibly investigation is needed to determine whether a long-term health concern exists and what additional steps should be taken, if any.

The public health levels for air were derived to maintain PCB exposures below EPA's "**Reference Dose**." The reference dose is the amount of daily PCB exposure that EPA believes will not elicit harm. EPA's reference dose is based upon body weight and is equivalent to **20 ng PCB/kg body weight Per Day**. EPA's Public Health Levels for air consider PCB exposures from all major sources and have been derived for all ages of children from toddlers in day-care to adolescents in high school.

There are several assumptions incorporated into the derivation of the public health levels for air. The levels assume an 8-hour school day for adults & children less than three years old. For children of [REDACTED] age, the applicable level assumes a

6.5-hour school day. In addition, EPA also assumed that children will be exposed to PCBs in the school setting for 180 days each year. Spending less time in school or any particular school room would decrease the potential exposure to PCBs and correspondingly result in higher acceptable PCB levels in that room or location.

At Juan Cabrillo Elementary School, the District consulted with EPA on the use of the public health levels for children of different ages, including children less than 6 years old. Our understanding from the District is that the 100 ng/m<sup>3</sup> airborne guideline has been applied to all classrooms occupied full-time by children of kindergarten age - those under 6 for most of the school year. Although these children may be present in other rooms such as in building F, the frequency and duration of time spent in these other rooms is substantially less. Based on these factors and the results measured by the District, we concurred with the District's application of our Public Health Levels and their conclusion that the air levels were acceptable.

In addition to these considerations, the District's sampling practice created a worst-case measurement scenario by eliminating ventilation during the 24-hour testing procedure while keeping the lights on. This strategy increases indoor temperatures to liberate the PCBs from potential sources and avoids the normal dilution that occurs from ventilation, both conditions are beyond what typically occurs. These practices were applied to ensure a more rigorous and robust testing and screening regime and should be considered when interpreting findings from airborne tests.

Finally, because the public health levels for air are based on EPA's PCB reference dose, an additional level of protection has been incorporated into the guidelines for all age groups. The reference dose for PCBs incorporates a safety factor of 300. This means that when EPA investigated the amount or dose of PCBs associated with adverse health impacts from a wide range of scientific investigations, it reduced that amount by a factor of 300. Therefore, the amount of PCBs actually associated with long-term adverse health impacts is roughly 300 times greater than the reference dose that we recommend for protection of public health.

In summary, EPA believes the district has appropriately applied the public health levels for PCBs in school air at the Malibu schools. The PCB sampling and testing strategy employed served to approximate worst-case building conditions by configuring the rooms with limited ventilation and the lights on. The public health levels for air maintain PCB exposures below the reference dose - an amount of daily PCB exposure that will not elicit harm. In addition, a substantial factor of safety was incorporated into EPA's derivation of the PCB reference dose. These factors all assure the health and safety of students, teachers and staff from the range of potential adverse health impacts associated with long-term exposure to PCBs at the Malibu schools.

We appreciate your continued interest and concern regarding the environmental conditions and indoor air quality at the Malibu Schools. We would be happy to discuss any outstanding concerns and you should feel free to contact me directly.

Best Regards...

..patrick wilson

~~~~~  
**Patrick Wilson, Ph.D., M.P.H.** | Senior Regional Toxicologist | Regional Incident Coordination Team

415.972.3354 | [wilson.patrick@epa.gov](mailto:wilson.patrick@epa.gov)

US EPA Region IX | 75 Hawthorne St. (WST-5) San Francisco, CA 94105-3901

<http://www.epa.gov/region9/>  
~~~~~

**From:** Jude Brown [<mailto:judebrownusa@gmail.com>]

**Sent:** Tuesday, September 30, 2014 1:29 PM

**To:** Blumenfeld, Jared

**Cc:** Scott, Jeff; Armann, Steve

**Subject:** Juan Cabrillo Elementary School PCB's above 100ng/m3 in classrooms occupied by 4, 5 and 6 year olds

**Importance:** High

Dear Jared,

My name is Jude Brown and I am the mom of [REDACTED] (just turned 6) who currently attends Juan Cabrillo Elementary School in Malibu. To get straight to the point - my husband and I are not allowing our 6 year old daughter to attend any classes in Building F at JCES because of the PCB's which have been found in the air, soil and caulk. As a result - the SMMUSD (see attached letter from Superintendent Lyon) are beginning truancy proceedings against her. She is in first grade.

I'd like to urgently draw your attention to Environ's Memorandum of September 5, 2014 which is posted on the SMMUSD website under 'Weekly Updates' in the 'Malibu Environmental Information' section. The Memorandum is the final summer progress report on air and wipe testing in both JCES and MHS. For the purposes of this email - I will be referring only to the data collected at JCES. Please will you first read the entire report and then refer to the sections below.

I have attached the document and highlighted the sections of concern (pages 1, 2, 5, 6, 8, 9 and 10).

**Page 1:** Please note the *tiny* footnote #6 which states: "Note that a threshold of **100 ng/m3** is recommended by USEPA for children 3 to under 6 years old. This threshold was used for the sampled JCES classrooms that are regularly occupied by children less than 6 years old."

**Page 2:** Please refer to paragraph bullet point #2. In summary, the District have decided to keep Room 6 in Building C **closed** to teachers and students because it is undergoing further investigation. 4 wipe samples came back above **1µg/100 cm2**.

Please refer to bullet point 3: "This includes all of the buildings at JCES8". See foot note 8 which again states: "Note that a threshold of 100 ng/m3 is recommended by USEPA for children 3 to under 6 years old. This threshold was used for the sampled JCES classrooms that are regularly occupied by children less than 6 years old."

**Page 5:** JCES Building C came back with air test results of **120 ng/m3** pre BMP Cleaning and **110 ng/m3** post cleaning. Again another tiny foot note - this time #12 states: "PCB's were detected in the pre-cleaning and post cleaning air samples in Room 6 with concentrations of **120 ng/m3** and **110 ng/m3**, respectively. Room 6 is not regularly occupied by children ages 3 to under 6 years old."

**Page 6:** Please refer to the first testing table:

**Pre-BMP** air samples came back at **120 ng/m3**. See footnote #13 which states: "The two air samples with detections of PCB's had reported concentrations of **120 ng/m3**. These air samples—which were collected from Room 19 and Room 23—were collected from rooms that are not regularly occupied by children ages 3 to under 6 years old." **This is incorrect.** Science is taught to kindergarteners and first graders once a week for 30 and 40 minutes in Room 23.

**Post-BMP** air samples came back at **160 ng/m3**. See footnote #14 which states: "the three air samples with detections of PCB's had reported concentrations of **88 ng/m3** (Room 19), **110 ng/m3** (Room 23) and **160 ng/m3** (Room 22). These rooms are not regularly occupied by children ages 3 to less than 6 years old." **Once again this is incorrect!** Please also take very careful note that the air came back with HIGHER levels of PCB's in the air *post* cleaning (Room 22)!!!

\*\*\*A total of 3 Pre-BMP samples were taken in Building F. This building has 8 rooms in it. 9 Post-BMP samples were taken - yet the raw data has not been provided to see exactly where these samples were taken and whether the door and windows were open or closed during the testing.

**Page 8:** Please refer to the testing table: JCES Building C. In summary - results for wipe testing in building C had higher than the recommended **1µg/100 cm<sup>2</sup>**.

**Page 9:** Please refer to paragraph 5, last sentence: “Currently, the District has conservatively kept Room 6 (office) in Building C closed to teachers and students because this room is undergoing further evaluation.”

WHY is Room 6, an office, being ‘conservatively kept closed’ while Building F - which has PCB’s in excess to the USEPA’s guidelines remains open?!

**Page 10:** Please refer to bullet point paragraph 6: “ENVIRON and the District will further evaluate, in conjunction with USEPA, MHS Building G Room 506 (woodshop) and JCES Building C Room 6 (office), which have a few post-cleaning wipe sample results above the USEPA’s recommended threshold of **1µg/100 cm<sup>2</sup>**.

Again WHY is Room 6, an office, being ‘conservatively kept closed’ while Building F - which has PCB’s in excess to the USEPA’s guidelines remains open?! Furthermore, we know that the independent testing done by Malibu Unites showed source caulk results in excess of **300,000 ppm** in Room 19. Additionally, the DTSC has revealed that PCB’s were found in the soil between buildings E and F (see attached map). I have been in direct contact with Maria Gillette of the DTSC to confirm this. If you put all of this information together. Air, wipe, caulk and soil tests all showing PCB’s - there is clearly a problem with Building F at JCES! Additionally and *most importantly* you have Kindergarteners and First Graders - most of whom are 4, 5 or 6 REGULARLY in those rooms!

I would like to know from you if the EPA are aware that children ages 4, 5 and 6 are regularly attending classes in this building? Please clarify the EPA’s position on this matter as a matter of urgency.

██████████ will remain out of Building F until it has been remediated, or portables are provided. The District will no doubt continue to suspend her during these periods and mark her truant.

Respectfully,

Jude Brown  
██████████

Attachment 1: SMMUSD Memorandum dated September 5th

Attachment 2: DTSC Soil Analysis map - showing sample JC SB-13 which had an elevated PCB level

Attachment 3: SMMUSD letter from Sandra Lyon